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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,105	11/20/2003	Hirokazu Yamamoto	KM-US030558	1104
22919 7590 08/28/2007 GLOBAL IP COUNSELORS, LLP 1233 20TH STREET, NW, SUITE 700 WASHINGTON, DC 20036-2680			EXAMINER HA, NGUYEN Q	
			ART UNIT 2854	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/707,105

Applicant(s)

YAMAMOTO ET AL.

Examiner

'Wynn' Q. HA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of that applicants are not claiming priority to the earlier filed Japanese Patent Application as stated in Applicant communication filed on 22 May 2007.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 5, 7, 8, 10, 11, 13-16 are rejected

under 35 U.S.C. 103(a) as being unpatentable over Applicant's disclosed prior art in view of Higuchi (US 6,259,468 B1).

Claim 1: Applicant's disclosed prior art teaches an abnormality management device 200 (Fig. 5; paragraph [0008] "Fig. 5 illustrates a conventional example of a management terminal display") connected via a network to an image forming device (Paragraph [0006] "These type of image forming devices not only can be used by a plurality of terminals via a network such as LAN, but can also be managed by means of one or more of these terminal") that includes a plurality of selectively used

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paper supply units or paper discharge units (Paragraph [0004] "Image forming devices having a plurality of paper supply units that supply paper and a plurality of paper discharge units that discharge paper...are well known in the art"), the abnormality management device 200 managing abnormalities in the image forming device and comprising:

a display unit 201 that displays an image of an image forming device in which the plurality of the paper supply units or paper discharge units are visually distinguished from each other (See Fig. 5);

an abnormality detection unit that detects abnormalities in the paper supply units or the paper discharge units based upon equipment data acquired from the image forming device (Paragraph [0009] "a paper supply unit is determined to be abnormal based on data acquired from the image forming device"); and

an abnormality display unit 201 that displays an abnormality when the abnormality was detected by the abnormality detection unit on the image of the image forming device.

Applicant's disclosed prior art does not teach that the abnormality detection unit displays with emphasis the location of the paper supply unit or paper discharge unit, in which an abnormality was detected, on the image of the image forming device.

Higuchi teaches an abnormality management device comprising a display unit (Figs. 6, 7) which displays with emphasis the location of

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a paper supply unit or paper discharge unit, in which an abnormality (e.g. "A4, NO PAPER, WAITING") was detected, on the image of the image forming device, for a user to recognize the location of an abnormality ("A4, NO PAPER, WAITING" shown on the top paper supply unit of Fig. 6) or a change in status of the paper supply units (Col. 7 lines 2-5 "when the data [e.g. paper size] is received, the status of each of the cassette unit 1008 is stored in the RAM 306 as shown in fig. 4..." Col. 8 lines 26-39 "Fig. 6 is displayed when the status of fig. 4 is notified").

It would have been obvious to one of ordinary skill in the art at the time the present invention was made to have Applicant's disclosed prior-art abnormality display unit 201 display with emphasis the location of the paper supply unit (or paper discharge unit), in which an abnormality was detected, on the image of the image forming device, as taught by Higuchi, for a user to recognize the location of an abnormality or a change in status of the paper supply units.

Claim 2: Applicant's disclosed prior art, as modified, teaches the abnormality management device set forth in claim 1, further comprising:

a default paper supply unit determining unit 202 (Applicant's Fig. 5) that determines whether one paper supply unit from amongst the plurality of the paper display units has been selected as a default (Paragraph [0008] "default selection portion 202 that selects a

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default paper supply unit from amongst the plurality of paper supply units"); and

a default display unit 201 (Applicant's Fig. 5) that displays with emphasis the position of the paper supply unit selected as a default on the image of the image forming device by means of a representation that is different than a representation used to display the paper supply unit in which an abnormality was detected (Paragraph [0008] "The default paper supply unit is clearly indicated on the image display portion 201").

Claim 4: Applicant's disclosed prior art, as modified, teaches the abnormality management device set forth in claim 1, further comprising a paper size display unit 203 (Applicant's fig. 5) that displays based upon equipment data acquired from the image forming device the size of paper stored in each paper supply unit (Paragraph [0008] "a paper size display portion 203 that displays the size of the paper in each paper supply unit");

wherein the abnormality display unit displays an abnormality by means of a symbol or an image in a paper size display location 203 (Applicant's fig. 5, the symbol is "N/A") of a paper supply unit in which an abnormality has been detected by means of the abnormality detection unit.

Claim 5: Applicant's disclosed prior art, as modified, teaches the abnormality management device set forth in claim 1, further

comprising a paper remaining display unit 205 (Applicant's fig. 5) that displays based upon equipment data acquired from the image forming device the amount of paper remaining in each paper supply unit;

wherein the abnormality display unit displays an abnormality by means of a symbol or an image in a paper remaining display location of a paper supply unit in which an abnormality has been detected by means of the abnormality detection unit (Applicant's Fig. 5, the symbol is "EMPTY"; Paragraph [0008] "a paper remaining detection display portion 205 that indicates whether or not there is paper remaining in each paper unit").

Claim 7 (Parallel to claim 1): Applicant's disclosed prior art, as modified, teaches an abnormality management system 200 for an image forming device, comprising all the elements being claimed (as discussed in claim 1).

Claim 8 (Parallel to claim 2): Applicant's disclosed prior art, as modified, teaches the abnormality management system set forth in claim 7, further comprising all the elements being claimed (as discussed in claims 7 and 2).

Claim 10 (Parallel to claim 4): Applicant's disclosed prior art, as modified, teaches the abnormality management system set forth in

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claim 7, further comprising all the elements being claimed (as discussed in claims 7 and 4).

Claim 11 (Parallel to claim 5): Applicant's disclosed prior art, as modified, teaches the abnormality management system set forth in claim 7, further comprising all the elements being claimed (as discussed in claim 7 and 5).

Claim 13: Applicant's disclosed prior art, as modified, teaches a computer readable medium comprising an abnormality management program (Applicant's paragraph [0011] "a management program" is considered to be stored in a computer readable medium) that is executed in a computer that is connected via a network to an image forming device that includes a plurality of selectively used paper supply units or paper discharge units, the abnormality management program managing abnormalities in the image forming device and comprising all the functions being claimed (as discussed in claim 1).

Claim 14: Applicant's disclosed prior art, as modified, teaches the abnormality management device set forth in claim 1, wherein emphasis includes at least one of a differentiating color, design (Higuchi's fig. 6 "NO PAPER" vs. "PAPER") and a flashing light.

Claim 15: Applicant's disclosed prior art, as modified, teaches the abnormality management system set forth in claim 7, wherein

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emphasis includes at least one of a differentiating color, design (Higuchi's fig. 6 "NO PAPER" design vs. "PAPER" design), and a flashing light.

Claim 16: Applicant's disclosed prior art, as modified, teaches the computer readable medium set forth in claim 13, wherein emphasis includes at least one of a differentiating color, design (Higuchi's fig. 6 "NO PAPER" design vs. "PAPER" design), and a flashing light.

3. Claims 3, 6, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's disclosed prior art in view of Higuchi, and further in view of Badovinac et al. (US 2004/0228639 A1).

Claim 3: Applicant's disclosed prior art, in view of Higuchi, teaches the abnormality management device set forth in claim 1, further comprising:

an out of paper determining unit 206 (Applicant's fig. 5) that determines based upon equipment data acquired from the image forming device whether any of the plurality of paper supply units have run out of paper (Paragraph [0008] "a paper detection display portion 206 that indicates whether or not there is paper remaining in each paper supply unit"); and

an out of paper display unit (Higuchi's fig. 6) that displays with emphasis the position of a paper supply unit, that has run out of

paper, on the image of the image forming device by means of a representation (e.g. "A4, NO PAPER, WAITING").

Although Applicant's disclosed prior art, in view of Higuchi, teaches the display unit (Higuchi's fig. 6) that shows "A4, PAPER OUT, WAITING" when the supply paper has run, it does not expressly teach that when an (other) abnormality was detected in the paper supply unit then another representation would be different than "A4, PAPER OUT, WAITING."

Badovinac teaches an abnormality management device 30 (Fig. 1) connected via a network to an image forming device (10, 11, 12 or 13), wherein the abnormality management device 30 shows different representations or expressions for different abnormalities detected in the image forming device, "the specific expression being selected in dependence on the seriousness of the situation (Paragraph [0077]), including an image representation "Error J14 Paper Jam Top Feeder" when the paper jam is in the top feeder (Fig. 3.8) to alert a user of the specific abnormality, e.g. "Error J14 Paper Jam Top Feeder."

Note: Badovinac also teaches in paragraph [0077] that abnormalities being "errors, such as paper jams, and other disturbances that need immediate attention...including empty paper trays, low cooling fluid, full finishers, out of staples, toner empty, special insert needed, special paper needed, etc."

It would have been obvious to one of ordinary skill in the art at the time the present invention was made to have the abnormality management device, disclosed by Applicant's prior art in view of

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Higuchi, comprising an out of paper display unit (Higuchi's fig. 6) that displays with emphasis the position of a paper supply unit, that has run out of paper e.g. "A4, NO PAPER, WAITING", on the image of the image forming device by means of an (other) representation "Paper Jam Top Feeder" that is different than a representation used to display the paper supply unit in which an (other) abnormality, e.g. a paper jam, was detected different than that of other respective paper supply units that may have an (other) abnormality, as taught by Badovinac, so that a user can easily identify the seriousness of the situation and the specific abnormality, e.g. "Error J14 Paper Jam Top Feeder."

Claim 6: Applicant's disclosed prior art, in view of Higuchi, teaches the abnormality management device set forth in claim 1.

Applicant's disclosed prior art, in view of Higuchi, does not teach the abnormality management device further comprising a sound abnormality generating unit that generates a sound when an abnormality is detected in a paper supply unit or a paper discharge unit by the abnormality detection unit.

Badovinac teaches an abnormality management device 30 (Fig. 1) connected via a network to an image forming device (10, 11, 12 or 13), wherein the abnormality management device 30 "may include a means for producing a visual and/or audio and/or vibration alert...in order to warn the operator (in case of an abnormality)" - See paragraph [0030].

It would have been obvious to one of ordinary skill in the art at the time the present invention was made to provide the abnormality

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management device, disclosed by Applicant's prior art in view of Higuchi, a sound abnormality generating unit that generates a sound when an abnormality is detected in a paper supply unit or a paper discharge unit by the abnormality detection unit, in order to warn the operator in case of an abnormality, as taught by Badovinac.

Claim 9 (Parallel to claim 3): Applicant's disclosed prior art, as modified, teaches the abnormality management system set forth in claim 7, further comprising all the other elements being claimed (as discussed in claim 3).

Claim 12 (Parallel to claim 6): Applicant's disclosed prior art, as modified, teaches the abnormality management system of the image forming device disclosed set forth in claim 7, further comprising a sound abnormality generating unit that generates a sound when an abnormality is detected in a paper supply unit or a paper discharge unit by the abnormality detection unit (as discussed in claim 6).

4. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's disclosed prior art in view of Higuchi, and further in view of Braun et al. (US 6,885,829 B2).

Claim 3: Applicant's disclosed prior art, in view of Higuchi, teaches the abnormality management device set forth in claim 1, further comprising:

an out of paper determining unit 206 (Applicant's fig. 5) that determines based upon equipment data acquired from the image forming device whether any of the plurality of paper supply units have run out of paper (Paragraph [0008] "a paper detection display portion 206 that indicates whether or not there is paper remaining in each paper supply unit"); and

an out of paper display unit (Higuchi's fig. 6) that displays with emphasis the position of a paper supply unit, that has run out of paper, on the image of the image forming device by means of a representation (e.g. "A4, NO PAPER, WAITING").

Although Applicant's disclosed prior art, in view of Higuchi, teaches that the display unit (Higuchi's fig. 6) shows "A4, PAPER OUT, WAITING" when the supply paper has run, it does not expressly teach that when an (other) abnormality was detected in the paper supply unit then another representation would be different than "A4, PAPER OUT, WAITING."

Braun teaches an abnormality management device 62 (Fig. 3) connected to an image forming device as well as a network 26 (Abstract "electrophotographic printing or copying system"); wherein "the operation and error states of individual assembly groups can be displayed via a colored identification [e.g. red, yellow or green] of the respective assembly groups in the schematic representations (col.

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9 lines 35-39)," so that "operating personnel can quickly and precisely, in a very simple manner, select a modular unit whose default values and operating states should be presented and checked (col. 9 lines 1-6)."

It would have been obvious to one of ordinary skill in the art at the time the present invention was made to have the abnormality management device, disclosed by Applicant's prior art in view of Higuchi, comprising an out of paper display unit (Higuchi's fig. 6) that displays with emphasis the position of a paper supply unit, that has run out of paper, on the image of the image forming device by means of a representation that is different than a representation used to display the paper supply unit in which an (other) abnormality was detected, e.g. via a colored identification [e.g. red, yellow or green] different than that of other respective paper supply units that may have an (other) abnormality, as taught by Braun, so that operating personnel can quickly and precisely, in a very simple manner, select the paper supply unit whose operating states should be presented and checked.

Claim 9 (Parallel to claim 3): Applicant's disclosed prior art, as modified, teaches the abnormality management system set forth in claim 7, further comprising all the other elements being claimed (as discussed in claim 3).

### *Response to Arguments*

5. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to 'Wynn' Q. HA whose telephone number is 571-272-2863. The examiner can normally be reached on Monday - Friday, from 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

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Representative or access to the automated information system, call  
800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 21, 2007  
NQH

/Daniel J. Colilla/  
Primary Examiner  
Art Unit 2854